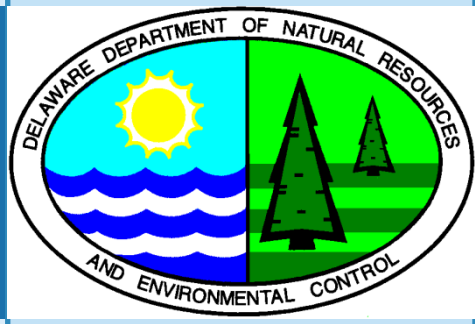
DNREC EQuIS Information Session for Contractors

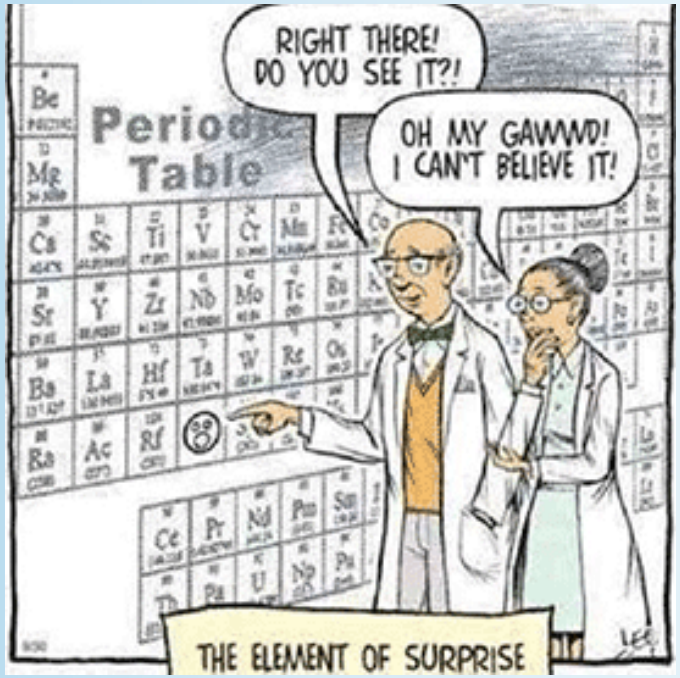
July 2014



CDM Smith

Introductions

- DNREC – Steph Scholl
- CDM Smith – Catherine Love
- EarthSoft – Kristin Cotreau



Agenda

- Goals
- What is EQuIS?
- What are the benefits of DNREC using EQuIS?
- Introduction to the EQuIS Workflow for loading data
- What is an EDD format?
- In depth look at DNREC EDD
- Break (10-15 minutes)
- Reviewing EDDs with EDP
- Submitting data to DNREC – acceptance and revisions
- Review of Resources

Goals

- Understand why DNREC is using EQuIS
- Understand the basics of the EQuIS workflow
- Understand how to submit data
- Understand what resources are available for DNREC contractors
- Understand the obligation to submit data

What is Site Data Management?

Site Data Management – The collection, processing, analyzing, and communicating project site data to assist in decision making.

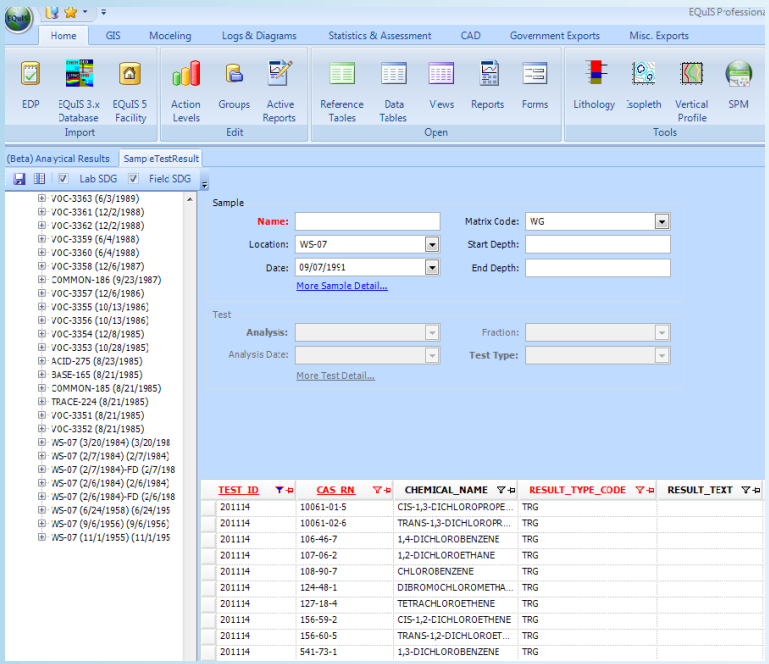
"A good system's design will promote it's use, and the ultimate value of data are in the data's use rather than in the storage."

"The real importance of a data management system is to provide the end user with a consistent data set of known quality"

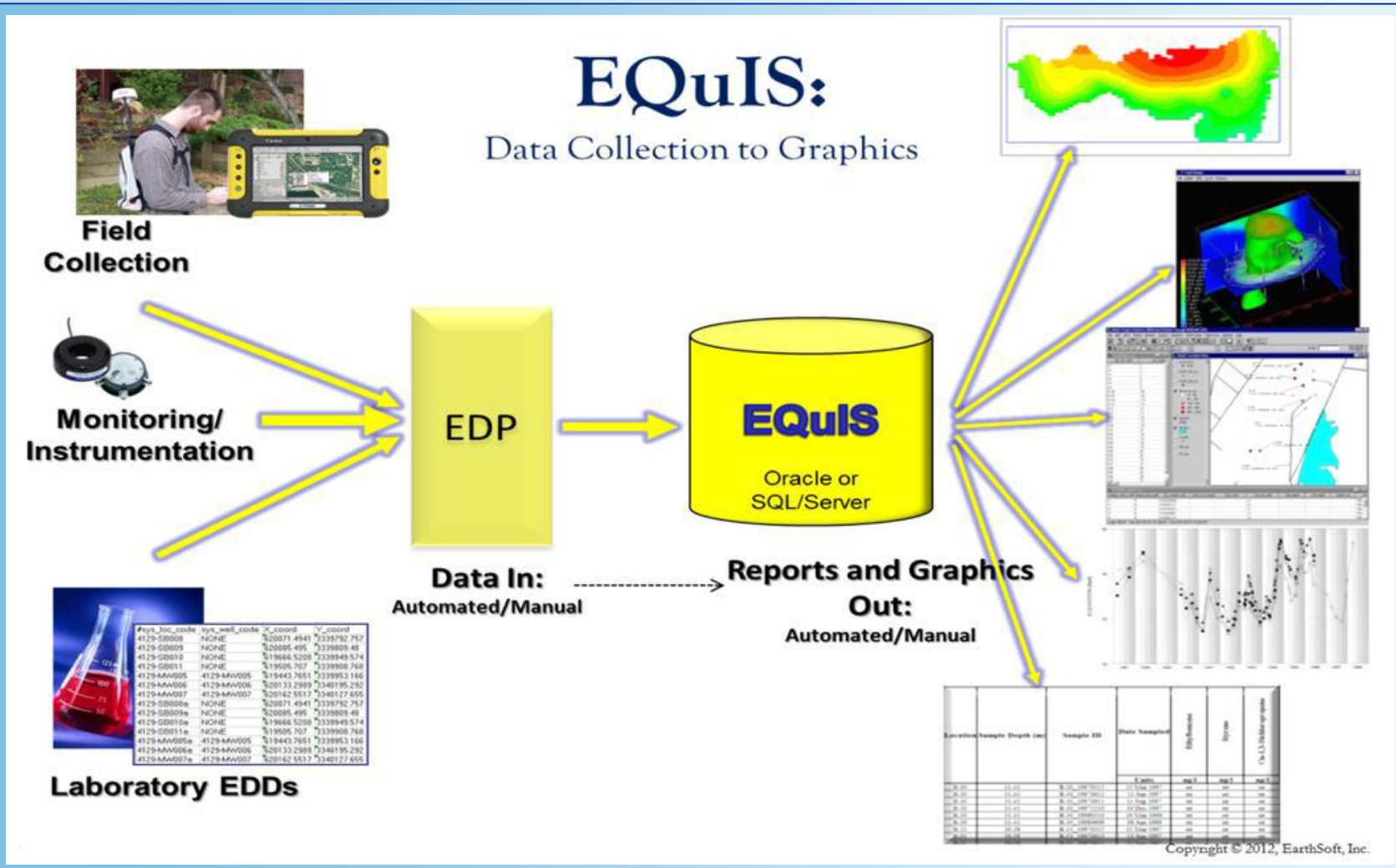
Long-Term Groundwater Monitoring – The State of the Art. The Task Committee on the State of the Art in Long-Term Groundwater Monitoring Design of the Environmental and Water Resources Institute. Reston, Virginia: American Society of Engineers, 2003.

What is EQuIS?

- Environmental Data Management Solution created by EarthSoft
- 3rd Party Software that uses SQL Server or Oracle as the back end database
- Structured database designed especially for environmental data.



EQuIS Workflow



Understanding the EQuIS Database

What is a facility?

- According to EarthSoft, “A facility is the physical or logical extent of data that is made available for reporting or modeling” and it "...may correspond to physical boundaries within which investigation or remediation is being conducted". The DNREC EQuIS database consists of numerous facilities. “Facility” and “site” may be used interchangeably. Each facility is assigned a facility_code.

What is a facility_code?

- A facility_code is the DNREC ID for the site. For example: DE-0321. The facility_code is used to identify the site in the database. Please contact the DNREC project officer assigned to the site if you are unsure of the facility_code.

Understanding the EQuIS Database

Basic Database Structure:

Facility (Old Gas Station A (DE-XXXX))

Subfacility (OU-1…operable unit 1)

Location (GSMW-01)

Sample (GSSO-01D…deep soil sample)

Test (SW8260 = VOCs by GC/MS)

Result (Benzene = 10 mg/kg)

Holds lots of other data too….

Benefits of EQuIS:
Excellent at dealing with large volumes of data

- Storing lots of information in one systematically accessible place
- Security of the data
- Ability to relate two or more pieces of data

Benefits of EQuIS: Data Quality

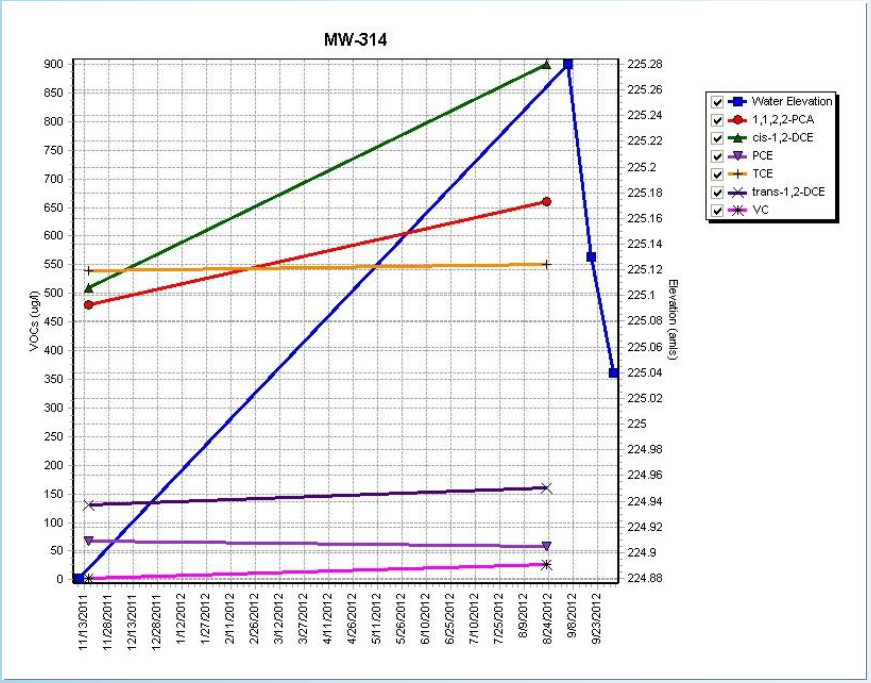
EQuIS has built in tools to help promote:

- Quality
- Consistency
- Completeness

When we create a workflow with these tools, we create quality data

Benefits of EQuIS: Consistency Across Projects

- Ability to analyze data across a single project and across multiple projects
- Helps regulatory agencies understand how data is presents over space and time
- Trends, bias…..decision making



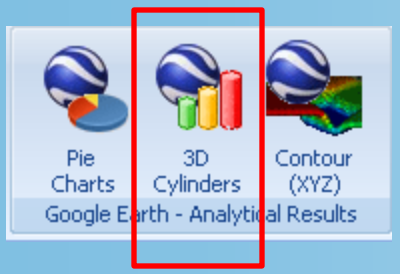
Trend Plot Map with Water Levels created in EQuIS

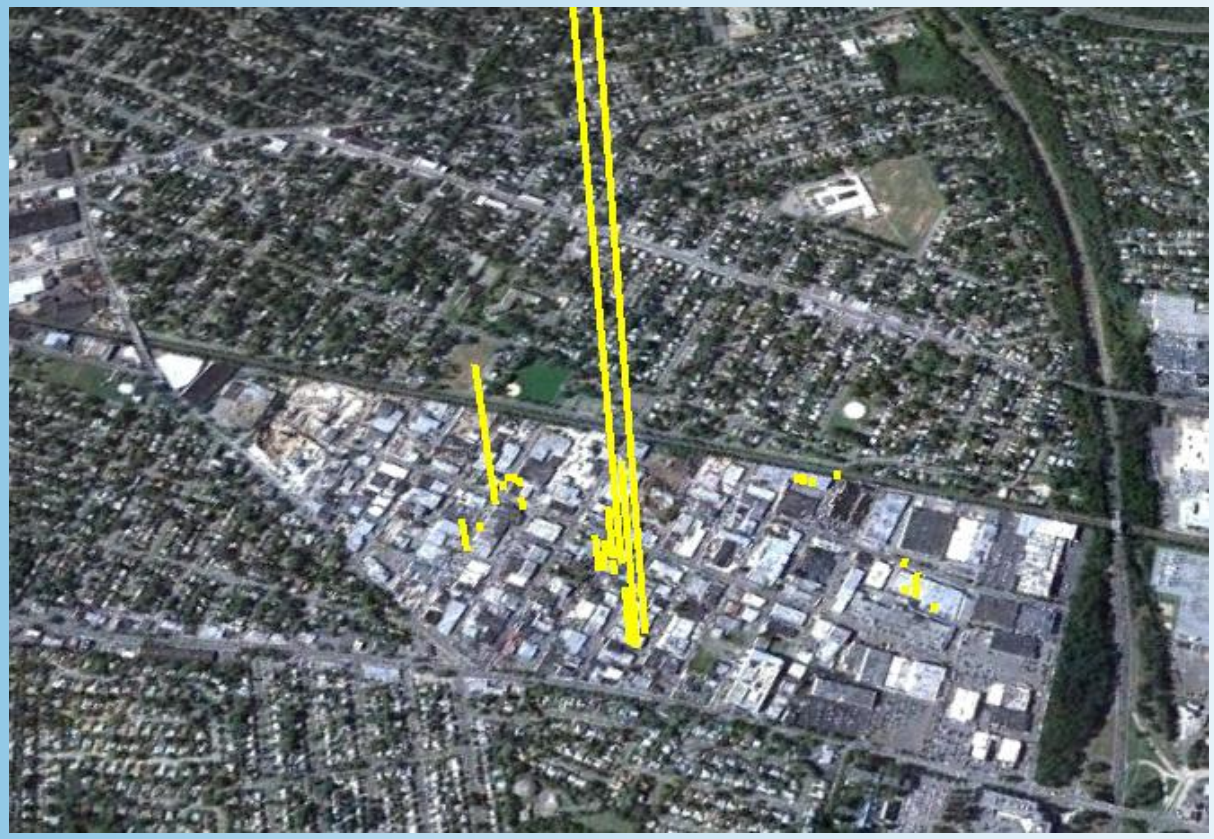
Google Earth – Location Map

- EQuIS location data can be directly imported into Google Earth

Google Earth – 3D Cylinder Map

- Displays the extent of concentration with the depth of the cylinder





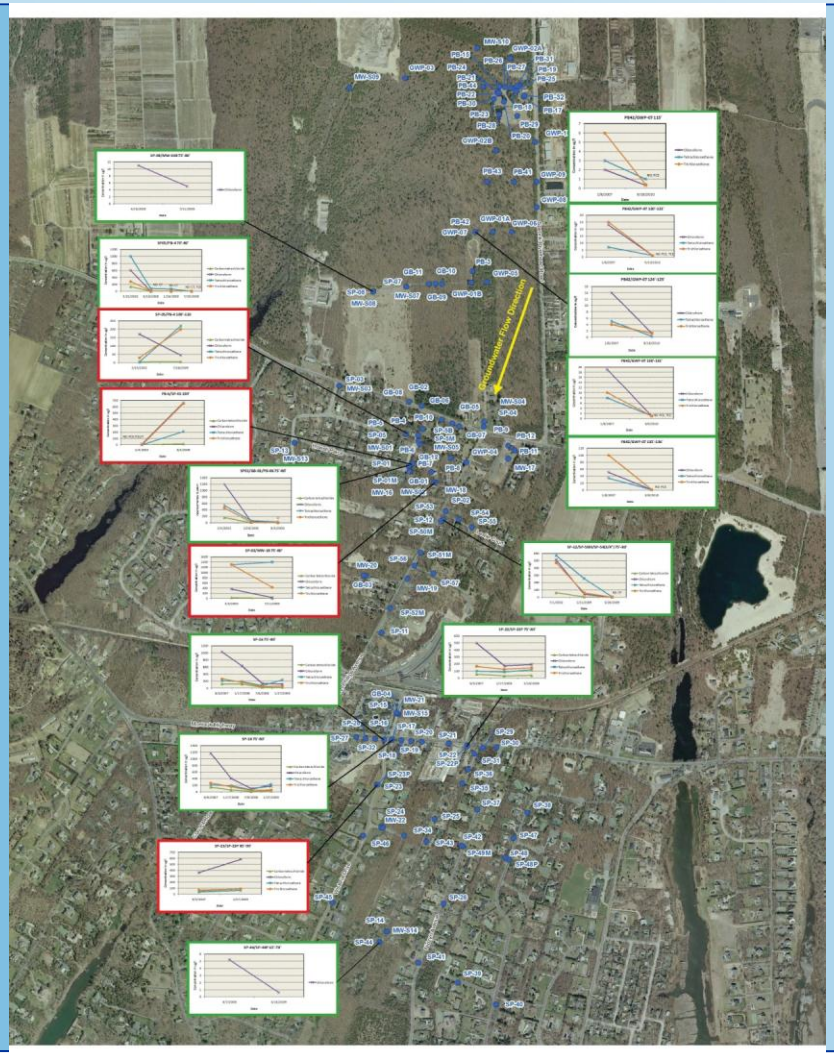
EQuIS – Action Level Exceedance Report

	Location	ACS-G-12		ACS-G-14		ACS-G-15	ACS-G-16	OU-1-1		
	Sample	ACS-G-12(0-2)	ACS-G-12(2-4)	ACS-G-14(0-2)	ACS-G-14(2-4)	ACS-G-15(3-4)	ACS-G-16(0-2)	OU-1-1(0.0-2.0)	OU-1-1(2.0-4.0)	OU-1-1(4.0-5.0)
	Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO
	Sample Type	N	N	N	N	N	N	N	N	N
	Sample Date	3/14/2014	3/14/2014	3/14/2014	3/14/2014	3/14/2014	3/14/2014	2/28/2014	2/28/2014	2/28/2014
	Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chemical Name	DNREC-SIRS Screening Level									
SW8082										
AROCLOR 1016	0.39	< 0.018 U	< 9.1 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.8 U	< 0.18 U	< 0.18 U	< 0.095 U
AROCLOR 1221	0.14	< 0.018 U	< 9.1 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.8 U	< 0.18 U	< 0.18 U	< 0.095 U
AROCLOR 1232	0.14	< 0.018 U	< 9.1 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.8 U	< 0.18 U	< 0.18 U	< 0.095 U
AROCLOR 1242	0.22	< 0.018 U	< 9.1 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.8 U	< 0.18 U	< 0.18 U	< 0.095 U
AROCLOR 1248	0.22	< 0.018 U	< 9.1 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.8 U	< 0.18 U	< 0.18 U	< 0.095 U
AROCLOR 1254	**0.11**	**0.11**	**69**	**4.8**	**6.2**	< 1.9 U	**4.3**	**0.65**	< 0.18 U	< 0.095 U
AROCLOR 1260	**0.22**	0.13	< 9.1 U	**7.6**	**9.6**	**7.4**	**7**	**0.6**	**1.6**	0.21
Polychlorinated biphenyls (PCBs)	**0.22**	NA	NA	NA	NA	NA	NA	**1.3**	NA	0.21

ArcGIS – Exceedance Level Map

- EQuIS ArcGIS toolbar connects to reports available in EQuIS
- Provides basic symbolization tools

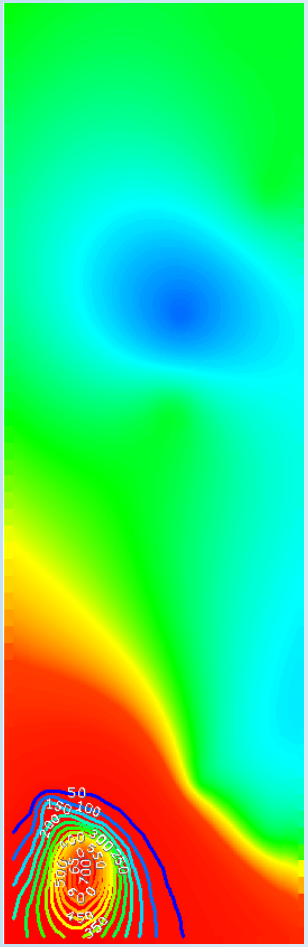
ArcGIS - Co-Located Samples Trend Map



This trend map was made by exporting co-located sample data to Excel to create the graphics and then ArcGIS was used to create the map.

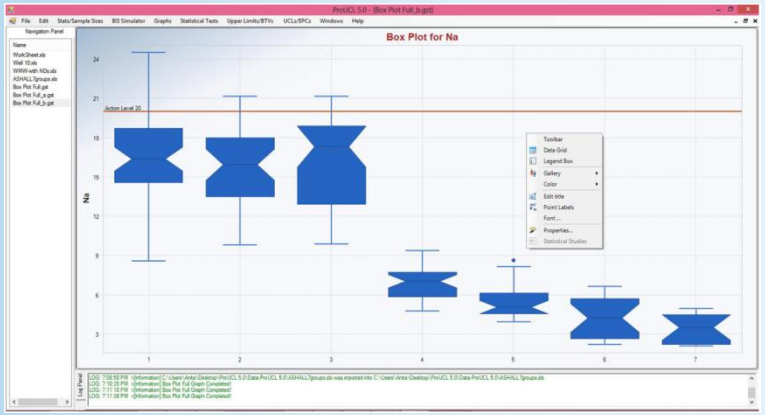
ArcGIS/Surfer – Contour Map

- Select data with the EQuIS for ArcGIS toolbar
- Make a data table that has one result per location using the cross tab tool
- Contours are create in Surfer and automatically displayed in ArcGIS.



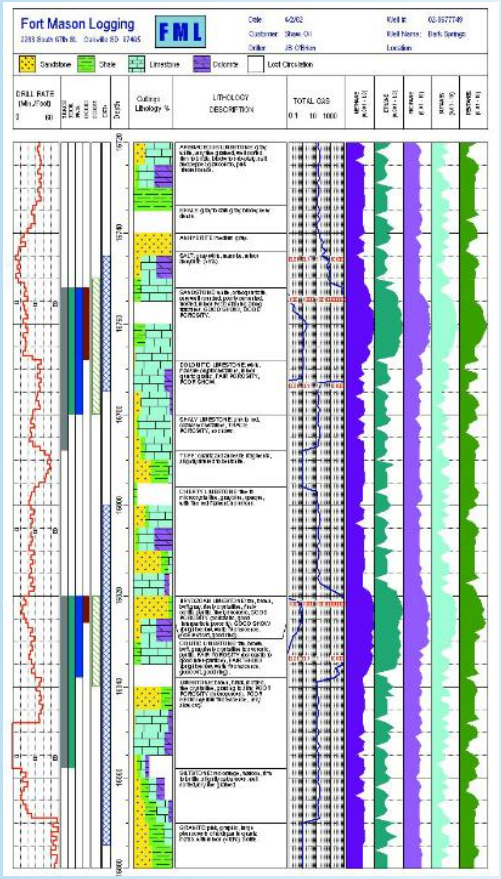
ProUCL – Statistical Package

- ProUCL is a statistical software package for analysis of environmental data sets with and without nondetect (ND) observations.
- It is a comprehensive statistical software package with statistical methods and graphical tools to address many environmental sampling and statistical issues



Log Plot

- **LogPlot** software is used to display geotechnical, environmental, geophysical, mud/gas, and mining data as a graphic boring log.



Introduction to the EQuIS Workflow

1. Populate EDD
2. Review EDD with EDP
3. Submit to EDD to DNREC

What is an EDD?

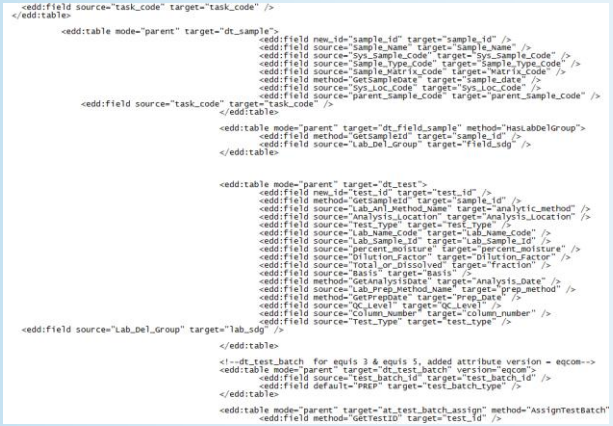
- Electronic Data Deliverable
- Template for organizing data in a prescribed method
- File containing data to be loaded into the database
- May be produced by a laboratory (analytic data)
- Data (such as field measurements) may be manually filled in

6.2.1 Sample EDD

$data_provider	sys_sample_code	sample_name	sample_matrix_code	sample_type_code	sample_source	parent_sample_code
$Text(20)	*Text(40)*	*Text(50)*	*Text(3)*	*Text(20)*	*Text(10)*	*Text(40)*
ABC Consulting	MW-001-20140507	MW-001	WG	N	Field	
ABC Consulting	SB-005S-20140501	SB-005S	SO	N	Field	
ABC Consulting	SB-005D-20140501	SB-005D	SO	N	Field	
ABC Consulting	Dup-01-20140501	Dup-01	SO	FD	Field	SB-005D-20140501
ABC Consulting	SB-005S-MS-20140501	SB-005S-MS	SO	MS	Lab	SB-005S-20140501
ABC Consulting	SB-005S-SD-20140501	SB-005S-SD	SO	SD	Lab	SB-005S-20140501
ABC Consulting	FB-01-20140501	FB-01	SQ	FB	Lab	
ABC Consulting	TB-01-20140501	TB-01	SQ	TB	Lab	
ABC Consulting	40148.6826-LB	40148.6826-LB	SQ	LB	Lab	

What is an EDD Format?

- A set of files that work together with the EQuIS Data Processor (EDP) to ensure that data that is loaded will meet a certain standard.
- Built into the EDD format is a set of business rules that the data must follow - All field duplicates must have a parent sample
- The format also connects to the valid value files to make sure that data is consistent.



DNREC EDD Format

- New DNREC EDD reflects the agency's data collection goals
- Similar to New York State Department of Environmental Conservation (NYSDEC) EDD Format
- Many states are working with EarthSoft to coordinate efforts with their EDD formats. This provides a cost savings and let's states collaborate and learn from each other

DNREC EDD Format Data Groupings

Initial

Data Provider

Subfacility

Location

Files

Subsurface Investigation

Drill Activity

Downhole Point

Lithology

Well

Well Construction

Geology Samples

Water Table

Field Activities

Water Level

Extraction Injection Wells

Soil Gas

Field Results

DNREC Screening Results

DNREC EDD Format Groupings

Chemistry

Sample

Sample Parameter

Test Result QC

Batch

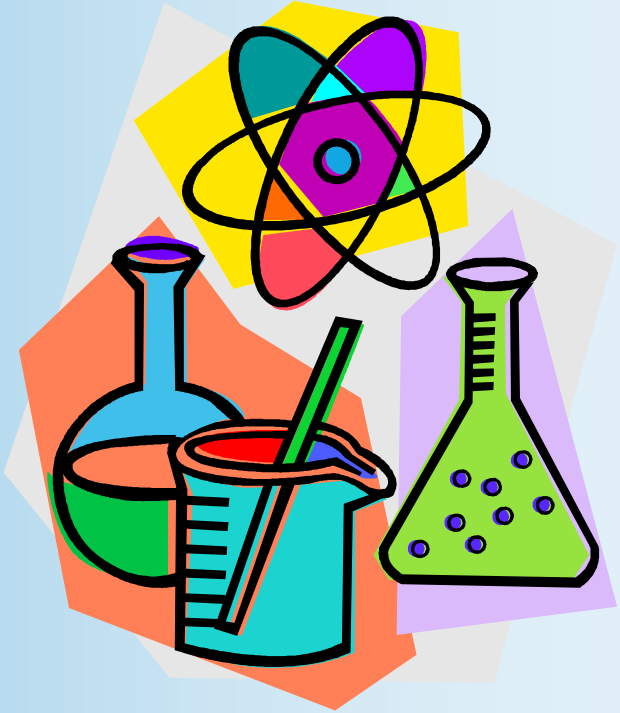
Basic Historical

Basic Locations

Basic Water Level

Basic Chemistry

Basic Geology

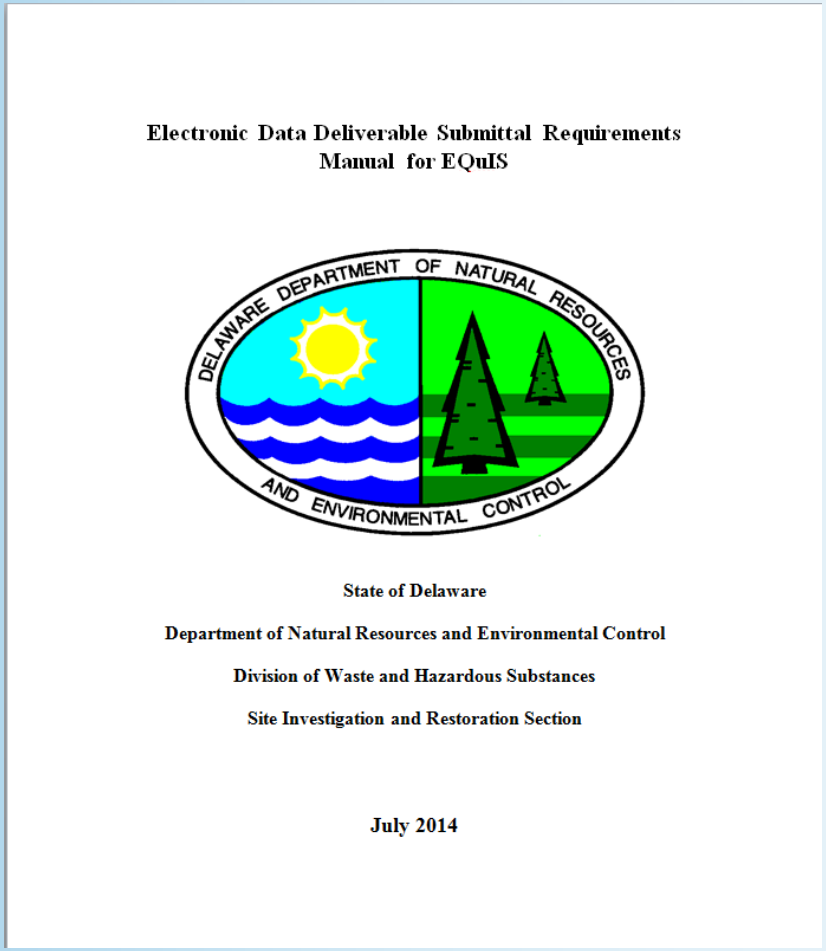


Demonstration: Overview of an EDD Format

Field Name	Data Type	Key	Required	Default	Parent	Lookup	Database Mapping(s)
sys_sample_code	Text(40)	PK	Y		Sample_v3.sys_sample_code		
lab_anl_method_name	Text(35)	PK	Y			rt_analytic_method.analytic_method	dt_test.analytic_method
analysis_date	DateTime	PK	Y				dt_test.analysis_date
fraction	Text(10)	PK	Y			rt_fraction.fraction	dt_test.fraction
column_number	Text(2)		Y	NA		(Enumeration: column_number)	dt_test.column_number
test_type	Text(10)	PK	Y	INITIAL		rt_test_type.test_type	dt_test.test_type
lab_matrix_code	Text(3)		Y			rt_matrix.matrix_code	dt_test.lab_matrix_code
analysis_location	Text(2)		Y			(Enumeration: analysis_location)	dt_test.analysis_location
basis	Text(10)		Y	NA		(Enumeration: basis)	dt_test.basis
container_id	Text(30)						dt_test.container_id
dilution_factor	Numeric		Y	1			dt_test.dilution_factor
prep_method	Text(20)					rt_prep_method.prep_method	dt_test.prep_method
prep_date	DateTime						dt_test.prep_date
leachate_method	Text(15)						dt_test.leachate_method
leachate_date	DateTime						dt_test.leachate_date
lab_name_code	Text(20)		Y			rt_company.company_code	rt_company.company_name dt_test.lab_name_code
qc_level	Text(10)		Y			(Enumeration: qc_level)	dt_test.qc_level
lab_sample_id	Text(40)		Y				dt_test.lab_sample_id
percent_moisture	Text(5)						dt_test.percent_moisture

DNREC EDD Submittal Manual

- Gives guidance on how to fill out and submit data to DNREC.
- Includes information on valid values
- Provides instructions on how to handle re-tests, non-detects, TICs qualifiers etc



Electronic Data Deliverable Submittal Requirements Manual for EQuIS

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

State of Delaware

Department of Natural Resources and Environmental Control

Division of Waste and Hazardous Substances

Site Investigation and Restoration Section

July 2014

Submittal Manual Outline

1. Introduction
2. General Requirements
    - 2.1 DNREC EDD Format
    - 2.2 Prior to Submitting EDD Files to DNREC
    - 2.3 Submitting EDD Files to DNREC
    - 2.4 Creating EDD Files
    - 2.5 Naming and Saving EDDs
    - 2.6 Checking EDD Files with EDP
3. Initial EDD Files
4. Subsurface Investigation EDD Files
5. Field Activities EDD Files
6. Chemistry EDD Files
7. Basic Historical EDD Files

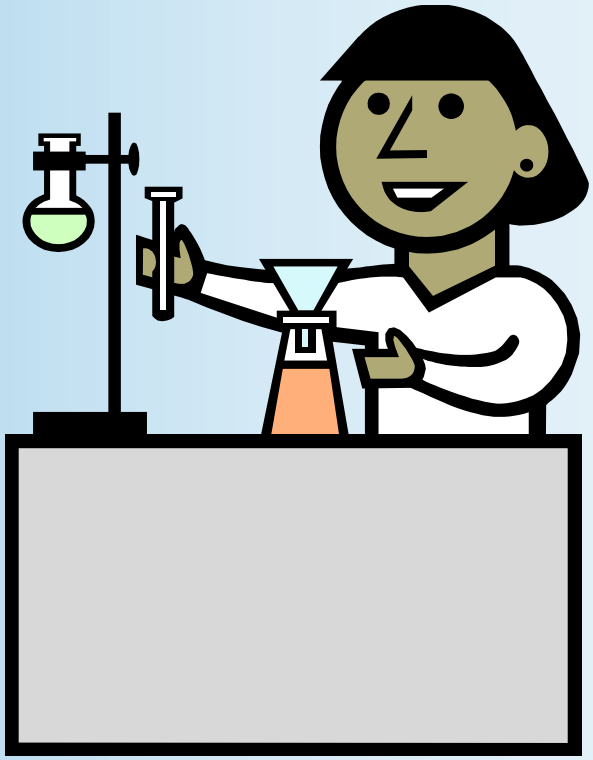
Appendix A – DNREC EDD Format Description

Consultants as Data Providers

- Consultants are responsible for the submittal of field and lab data from any subcontractors that are providing data collection, laboratory or validation services
- Consultants are responsible for the completeness and quality of the data

Laboratory as Data Providers

- Labs contracted by a consultant should submit lab EDD files to the consultant and not to DNREC directly
- Labs contracted by DNREC should submit lab EDD files via email to DNREC



Minimum Required EDD Sections to Populate

Required Sections:

- Location – location name and coordinates
- Lithology- lithologic data from soil samples or drill cuttings
- Samples – sample date, location, type, matric source, start & end depth
- TestResultsQC – tests, results and quality control data
- Batch – data associating samples with lab batch identifiers

Additional Required Sections for Wells:

- Wells – installation date, well permit #, top of casing elevation, depth of well, stick up height.
- WaterLevel – water level measurements including water level depth and water level elevation.

Submitting EDDs to DNREC: Pre-Submittal

- Before submitting EDD files, it is important that data providers contact the DNREC-SIRS project officer assigned to the site first (and prior to sampling) to determine what site data should be submitted via EDDs.
- Then if it is a new site, the SIRS project officer and/or the data provider must provide some basic site/facility information directly to the DNREC EQuIS database management team via email at DNREC_EQuIS@state.de.us. This information should include the following:
  - Facility Name
  - Facility DE #
  - DNREC-SIRS Project Officer Name
  - Data Provider Name (consultant company name & primary contact person for EDDs)
  - Facility Address (street, city, zip code, county)
  - Program the Facility is part of (PA/SI, Brownfields, VCP, HSCA)

Creating a New EDD

Populated EDD by:

- Adding data directly to blank EDD
- Working with lab to populate EDD

Acceptable files include:

- 1. Excel workbook (.xls or .xlsx)
- 2. Access database (.mdb or .accdb)
- 3. Individual Tab delimited file (.txt)
- 4. Individual Comma delimited file (.csv) (aka Comma separated file)
- 5. Zip file (.zip) with individual files included

Required Fields

- Data providers must populate all *required* fields in the EDD sections which are submitted to DNREC. In general, **Red** fields are required fields and must be populated.
- **Red and underlined** fields are required and are primary key fields, meaning they must be unique in the database. Required fields are also distinguished in the *DNREC EDD Description* file.
- Although required fields must be populated, DNREC encourages data providers to populate non-required fields as well when relevant information is available

Controlled Vocabulary/Look Up Fields

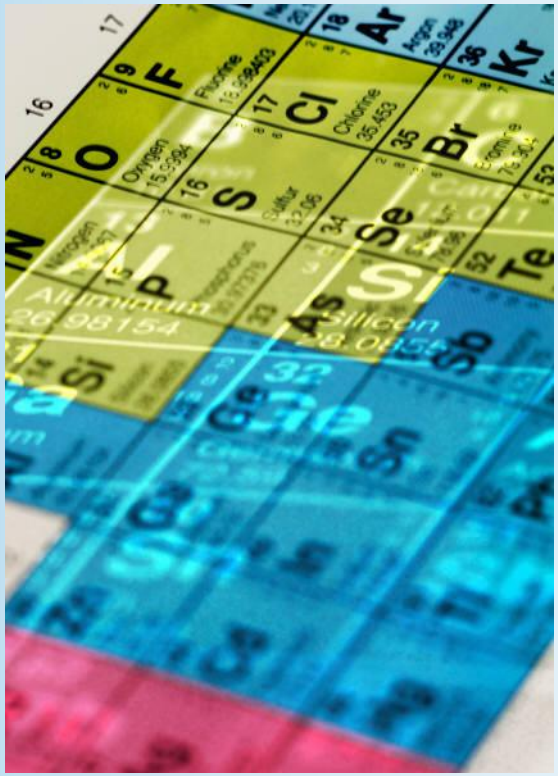
- Specific fields have controlled vocabulary and must be populated in compliance with DNREC reference and/or enumerated values.
- Data providers must look to the appropriate reference table or section of the enumeration file (DNREC-enum.xsd) to determine what values are valid for the field.
- In EDP, a drop-down list of these valid values is available for each field.

Reference Values

- **Reference value** fields must be populated with values from a designated reference table and by default they are blue.
- Reference values (aka valid values or lookups) may be viewed by reference table under the “Reference Values” tab in EDP when the DNREC.rvf file is loaded.
- DNREC reference values are also located in an Excel document on DNREC’s EQuIS webpage. To determine what reference table is associated with a specific field, data providers may hover over the blue field header in EDP or they may view the Lookup column of the EDD Description Tool in EDP.

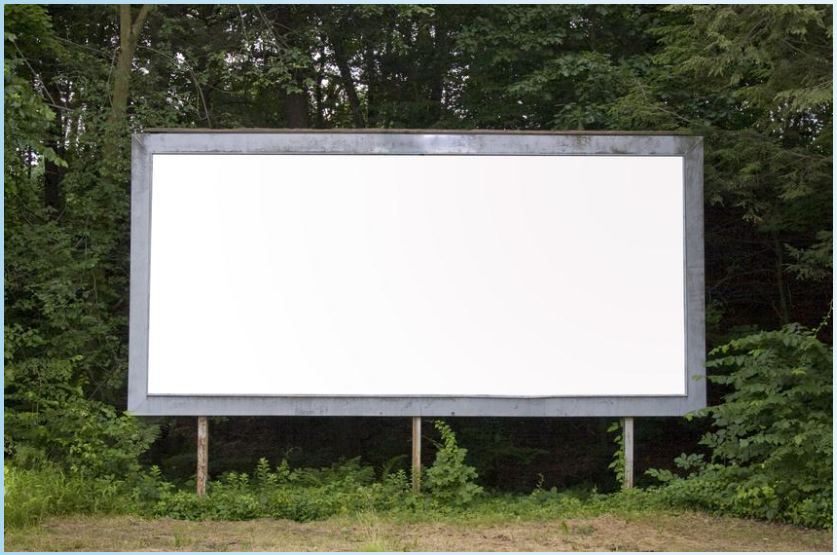
Reference Values - CAS RN

- Look up on the CAS RN not on the chemical name
- Database imports the CAS RN and leaves behind the chemical name
- When the database runs a report it uses the chemical name from rt_analyte table



Null Values

- If a field is not required and contains no information (a null field), it cannot be removed from the EDD; instead, it must remain blank.



Re-Tests

- For initial tests, all analytes should be reported.
- In the case where retests are performed on a sample (i.e. Dilution1, Dilution2, Reextract1, etc.), the result that is considered the reportable result should indicate “Yes” in the reportable_result field.
- The initial test, and any retest result not considered reportable should have reportable_result set to “No”.

Test_type	Cas_rn	Chemical_name	Result_value	Reportable_result	Detect_flag	Lab_qualifiers	Result_comment
Initial	79-01-6	Trichloroethene	2000	No	Y	E	Too concentrated
Dilution1	79-01-6	Trichloroethene	500	Yes	Y		

Non-Detects

- When reporting non-detects in the EDD files, the result_value must be null, the detect_flag must be 'N', and the reporting_detection_limit and reporting_detection_limit_unit must be populated.
- The laboratory should assign a qualifier of 'U' to the result in the lab_qualifier and interpreted_qualifier . Even though the result may be non-detect, it is still considered a reportable_result ; therefore reportable_result should be 'Yes'.
- Alternatively, if a result is detected and the detect_flag = 'Y', then the result_value field must be populated.

Cas_rn	Result_value	Reportable_ result	Detect_flag	Reporting_detection _limit	Detection_limit _unit	Lab_qualifier
7440-38-2	11	Yes	Y	2.2	mg/kg	
7440-38-2		Yes	N	2.2	mg/kg	U

Qualifiers

- Data providers must refer to the codes and definitions within DNREC's reference table for qualifiers (rt_qualifier). The data provider should select the code that best matches the definition of the qualifier used to qualify the results.
- Example: If the laboratory defines qualifier 'H' as 'sample was prepped or analyzed beyond the specified holding time' but in DNREC's rt_qualifier 'H' is defined as 'sample is estimated and biased high' then the lab cannot use the qualifier code of 'H'. The lab should instead use the DNREC code of 'V' to indicate that the sample was prepped or analyzed beyond the specified holding time.

Validation

- If data is validated, the validator's qualifiers should be included in validator_qualifiers field. Interpreted_qualifier should include both the lab_qualifier and validator_qualifier entries combined
- If the data was not validated, the values in lab_qualifier should be copied into the interpreted_qualifier field

Tentatively Identified Compounds (TICs)

- Tentatively Identified Compounds (TICs) should be reported when detected.
- The TICs should first be identified to the analyte name if possible and then to the class of the TIC (i.e. Unknown PAHs). If the TIC cannot be identified by analyte name or class, it should be identified as "Unknown".
- All TIC results should have "TIC" in the result type code field.

Cas_rn	Chemical_name
UNKNOWN1	UNKNOWN with highest conc.
UNKALCOHOL2	UNKNOWN ALCOHOLS with 2nd highest conc.
UNKALKALDHYDE1	UNKNOWN ALKYL ALDEHYDES with highest conc.
UNKALKKEYTONE1	UNKNOWN ALKYL KEYTONES with highest conc.
UNKAROMATIC10	UNKNOWN AROMATICS with 10th highest conc.
UNKCARBACID4	UNKNOWN CARBOXCYLIC ACID with 4th highest conc.
UNKHYDROCARB1	UNKNOWN HYDROCARBONS with highest conc.
UNKPAH1	UNKNOWN PAHS with highest conc.
UNKSV5	UNKNOWN Semi-Volatile with 5th highest conc.
UNKVOA8	UNKNOWN VOA with 8th highest conc.

Specific Examples

- The Submittal Document (Sections 3- 7) contains a description of and specific examples of populated tables
- Appendix A contains the EDD Description information

6.2.1 Sample EDD

$data_provider	sys_sample_code	sample_name	sample_matrix_code	sample_type_code	sample_source	parent_sample_code
$Text(20)	*Text(40)*	*Text(50)*	*Text(3)*	*Text(20)*	*Text(10)*	*Text(40)*
ABC Consulting	MW-001-20140507	MW-001	WG	N	Field	
ABC Consulting	SB-005S-20140501	SB-005S	SO	N	Field	
ABC Consulting	SB-005D-20140501	SB-005D	SO	N	Field	
ABC Consulting	Dup-01-20140501	Dup-01	SO	FD	Field	SB-005D-20140501
ABC Consulting	SB-005S-MS-20140501	SB-005S-MS	SO	MS	Lab	SB-005S-20140501
ABC Consulting	SB-005S-SD-20140501	SB-005S-SD	SO	SD	Lab	SB-005S-20140501
ABC Consulting	FB-01-20140501	FB-01	SQ	FB	Lab	
ABC Consulting	TB-01-20140501	TB-01	SQ	TB	Lab	
ABC Consulting	40148.6826-LB	40148.6826-LB	SQ	LB	Lab	

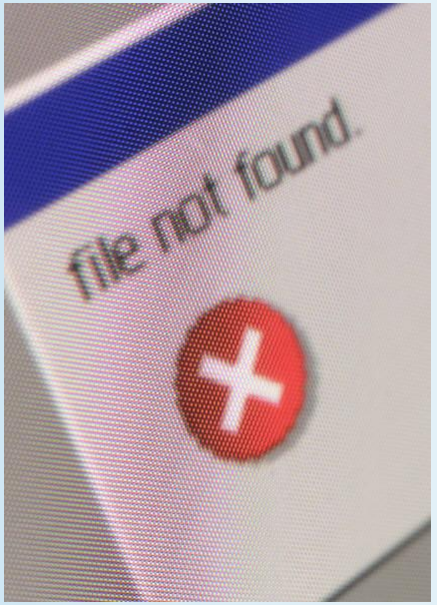
sample_delivery_group	sample_date	sys_loc_code	start_depth	end_depth	depth_unit	chain_of_custody	sent_to_lab_date
Text(20)	*DateTime*	*Text(20)*	*Numeric*	*Numeric*	*Text(15)*	*Text(15)*	*DateTime*
B200	2014/5/7 08:00:00	MW-001	10	20	ft		2014/5/7 00:00:00
A100	2014/5/1 09:00:00	SB-005	0	2	ft		2014/5/1 00:00:00
A100	2014/5/1 09:10:00	SB-005	8	10	ft		2014/5/1 00:00:00
A100	2014/5/1 08:00:00	SB-005	8	10	ft		2014/5/1 00:00:00
A100	2014/5/1 09:00:00	SB-005	0	2	ft		2014/5/1 00:00:00
A100	2014/5/1 09:00:00	SB-005	0	2	ft		2014/5/1 00:00:00
A100	2014/5/1 08:00:00						2014/5/1 00:00:00
A100	2014/5/1 08:00:00						2014/5/1 00:00:00
A100	2014/5/3 12:00:00						

Test Result QC EDD Format

Position	Field Name	Data Type	Required	Lookup	Comment
A	sys_sample_code	Text(40)	Y		Unique sample identifier. Each sample at a facility must have a unique value, including spikes and duplicates. sys_sample_codes cannot match sys_loc_codes. DNREC prefers using the sys_loc_code as part of the sample ID and adding a date in the format (YYYYMMDD) in order to make it unique. For example: MW-001 + June 06, 2001= MW-001-20010606). For trip blanks that do not have unique sample IDs, enter TB plus the date, e.g., TB + April 5, 2000 = TB-20000405. Non alpha-numeric characters (save for the underscore _ and the dash - characters) are prohibited in the sys_sample_code. Other segments can be added to the sample ID, such as information regarding the sample type, sample round, or sample depths.
B	lab_anl_method_name	Text(35)	Y	rt_analytic_method.analytic_method	Laboratory analytical method name or description. Use code from rt_analytic_method.analytic_method valid values table. Example: SW8260, E130.1, etc.
C	analysis_date	DateTime	Y		Date and time of sample analysis in 'MM/DD/YYYY HH:MM:SS' format. May refer to either beginning or end of the analysis as required.
D	fraction	Text(10)	Y	rt_fraction.fraction	Must be either 'D' for dissolved or filtered [metal] concentration, or 'T' for total or 'NA' for not applicable.
E	column_number	Text(2)	Y	(Enumeration: column_number)	Report as null.
F	test_type	Text(10)	Y	rt_test_type.test_type	Type of test. Use code from rt_test_type.test_type valid values. Examples: 'INITIAL', 'REEXTRACT1', 'REEXTRACT2', 'REEXTRACT3', 'REANALYSIS', 'DILUTION1', 'DILUTION2', and 'DILUTION3'.
G	lab_matrix_code	Text(3)	Y	rt_matrix.matrix_code	This code distinguishes differences between the matrix that was analyzed, and not the matrix of the sample received. Example: TCLP analysis of a soil sample would report "WL" for leachate not "SO" for soil.

Naming and Saving EDDs

- Submittal Manual provides guidance on how files must be saved and named for each file type
- If the naming convention is not followed **exactly** (spelling counts) then the data will not be loaded into EDP.
- It is recommended that the date and facility ID are included in the file names unless otherwise noted.



Demonstration: Populating an EDD

6.2.2 Test Result QC EDD

$sys_sample_code	lab_anl_method_name	analysis_date	fraction	column_number	test_type	lab_matrix_code
$Text(40)	*Text(35)*	*DateTime*	*Text(10)*	*Text(2)*	*Text(10)*	*Text(3)*
SB-005S-20140501	SW8270	2014/5/7 19:00:00	T	NA	Initial	SO
SB-005S-20140501	SW6010	2014/5/8 10:00:00	T	NA	Initial	SO
SB-005S-20140501	SW8260	2014/5/7 17:00:00	T	NA	Initial	SO
SB-005S-MS-20140501	SW8260	2014/5/7 18:05:00	T	NA	Initial	SO
SB-005S-MS-20140501	SW8260	2014/5/7 18:05:00	T	NA	Initial	SO

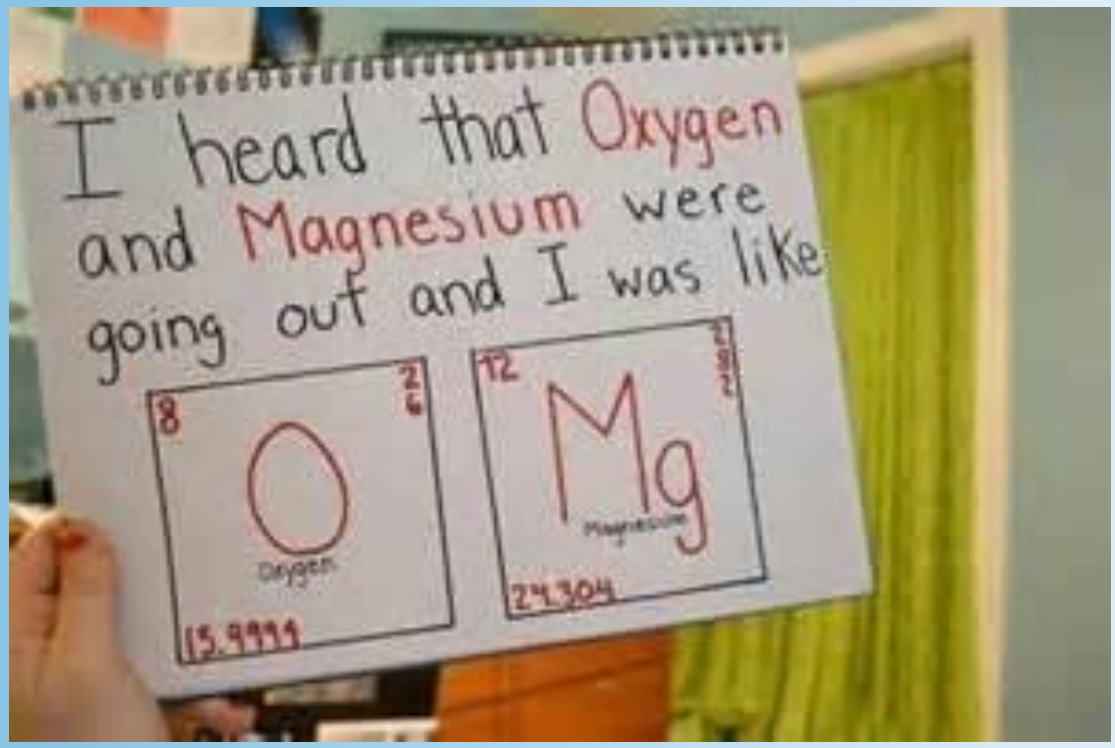
analysis_location	basis	container_id	dilution_factor	prep_method	prep_date	leachate_method	leachate_date
Text(2)	*Text(10)*	*Text(30)*	*Numeric*	*Text(20)*	*DateTime*	*Text(15)*	*DateTime*
LB	Dry		2	SW3550	2014/5/6 16:04:00		
LB	Dry		2				
LB	Dry		50	SW5030	2014/5/3 12:15:00		
LB	Dry		50	SW5030			
LB	Dry		50	SW5030			

lab_name_code	qc_level	lab_sample_id	percent_moisture
Text(20)	*Text(10)*	*Text(40)*	*Text(5)*
XYZ Lab	Quant	123456	9.6
XYZ Lab	Quant	123456	9.6
XYZ Lab	Quant	123456	9.6

Additional Fields

cas_rn	chemical_name	result_value	result_error_delta
Text(15)	*Text(75)*	*Numeric*	*Text(20)*
86-74-8	Carbazole		
7440-39-3	Barium	41.8	
79-01-6	Trichloroethylene		

BREAK


I heard that Oxygen
and Magnesium were
going out and I was like
8
O
Oxygen
15.9994
12
Mg
24.304

What Does the EDP Do?

EDP Reviews Data for:

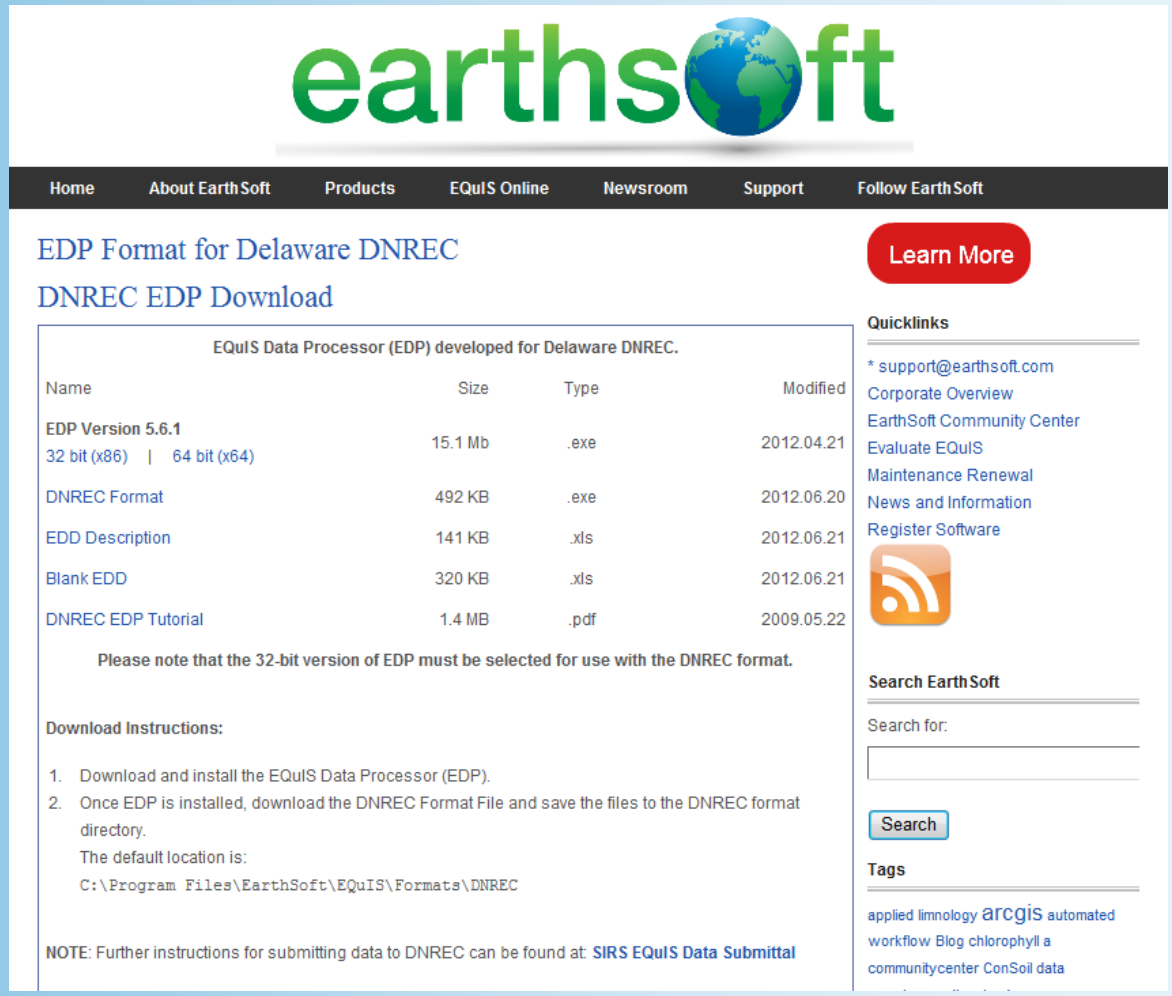
- Required Fields
- Field Lengths
- Data Types
- Valid Dates
- Reference Values
- Duplicate Rows
- Range Checking
- Orphan Rows
- Builit-in business rules

EDP User's Guide

Table of Contents

Obtaining EDP and the DNREC EDD Format

1. Download and install EDP
2. Download DNREC Format
3. Download the EDP Tutorial
4. Download the EDD Description and Blank EDD



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EDP Format for Delaware DNREC

DNREC EDP Download

EQuIS Data Processor (EDP) developed for Delaware DNREC.

Name	Size	Type	Modified
EDP Version 5.6.1 32 bit (x86) | 64 bit (x64)	15.1 Mb	.exe	2012.04.21
DNREC Format	492 KB	.exe	2012.06.20
EDD Description	141 KB	.xls	2012.06.21
Blank EDD	320 KB	.xls	2012.06.21
DNREC EDP Tutorial	1.4 MB	.pdf	2009.05.22

Please note that the 32-bit version of EDP must be selected for use with the DNREC format.

Download Instructions:

1. Download and install the EQuIS Data Processor (EDP).
2. Once EDP is installed, download the DNREC Format File and save the files to the DNREC format directory.
   The default location is:
   `C:\Program Files\EarthSoft\EQuIS\Formats\DNREC`

NOTE: Further instructions for submitting data to DNREC can be found at: **SIRS EQuIS Data Submittal**

Learn More

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Maintenance Renewal
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Search

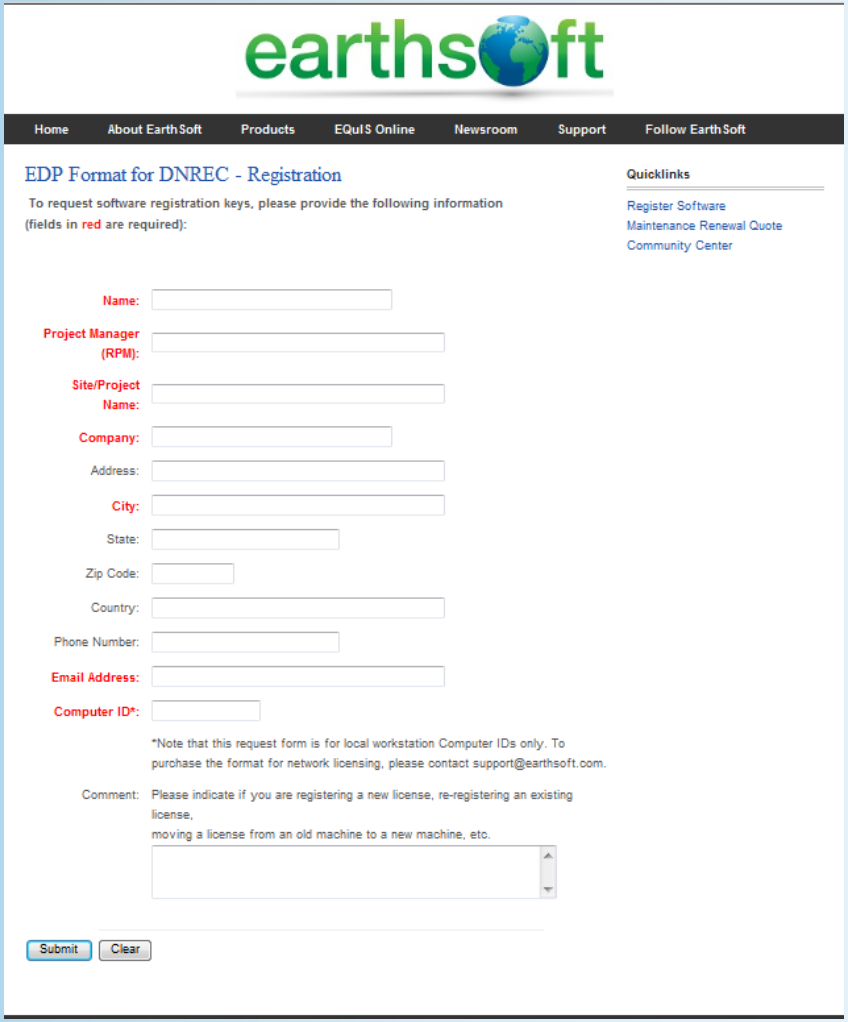
Tags

applied limnology arcgis automated workflow Blog chlorophyll a communitycenter ConSoil data

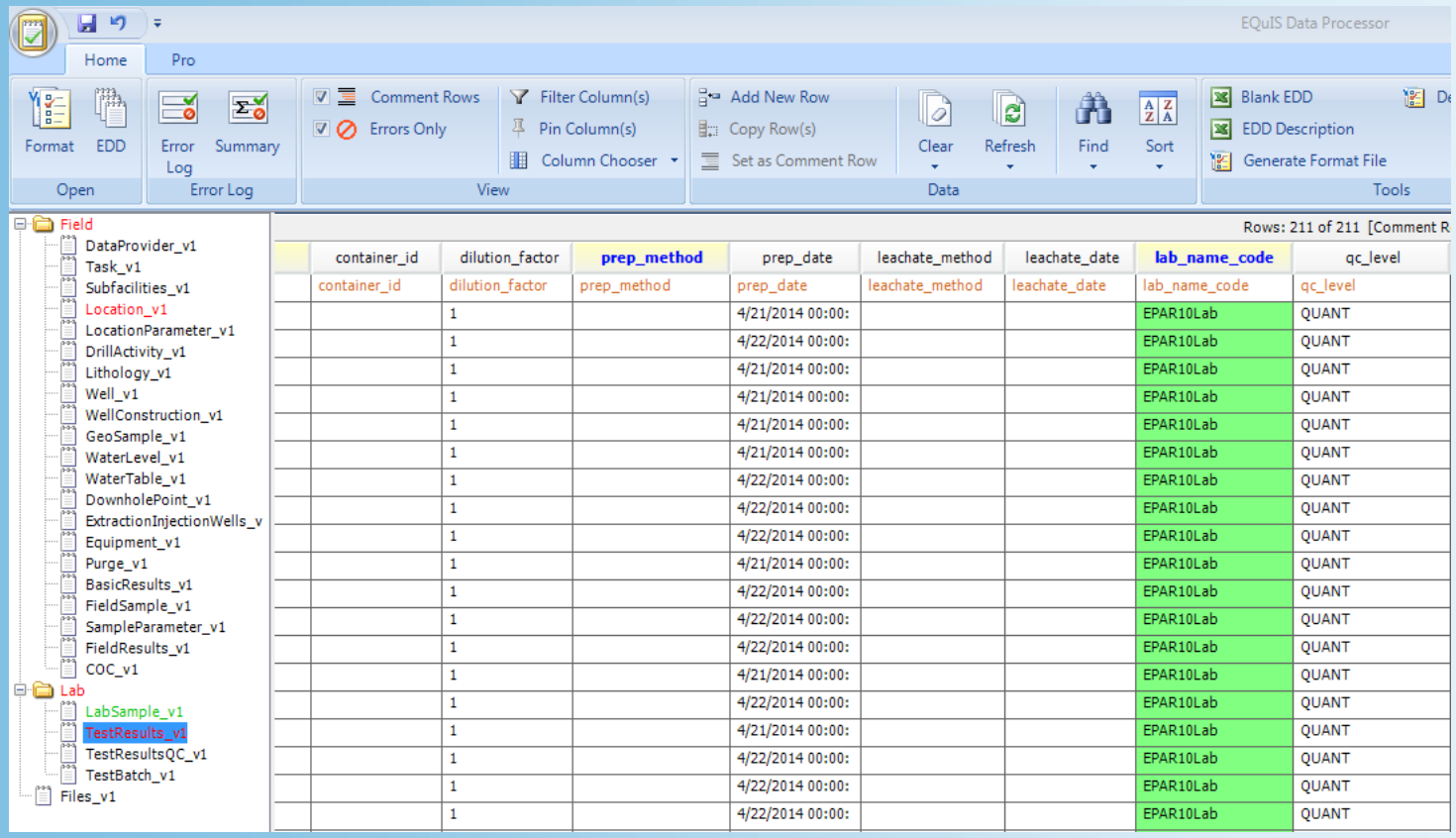
Register for EDD Format

1. In EDP, open EDD format
2. You will be prompted to register, click register
3. Click here to request registration key for this computer
4. Fill out the registration form that opens in your browser, submit the form
5. You will receive registration keys in your email from DNREC
6. Go back through the registration process and paste the keys in the registration box. Click Ok.

***Detail directions are in the EDP User's Guide Manual.



DEMONSTRATION - EDP



container_id	dilution_factor	prep_method	prep_date	leachate_method	leachate_date	lab_name_code	qc_level
container_id	dilution_factor	prep_method	prep_date	leachate_method	leachate_date	lab_name_code	qc_level
	1		4/21/2014 00:00:			EPAR10Lab	QUANT
	1		4/22/2014 00:00:			EPAR10Lab	QUANT
	1		4/21/2014 00:00:			EPAR10Lab	QUANT
	1		4/21/2014 00:00:			EPAR10Lab	QUANT
	1		4/21/2014 00:00:			EPAR10Lab	QUANT
	1		4/21/2014 00:00:			EPAR10Lab	QUANT
	1		4/22/2014 00:00:			EPAR10Lab	QUANT
	1		4/22/2014 00:00:			EPAR10Lab	QUANT
	1		4/22/2014 00:00:			EPAR10Lab	QUANT
	1		4/21/2014 00:00:			EPAR10Lab	QUANT
	1		4/22/2014 00:00:			EPAR10Lab	QUANT
	1		4/22/2014 00:00:			EPAR10Lab	QUANT
	1		4/22/2014 00:00:			EPAR10Lab	QUANT
	1		4/21/2014 00:00:			EPAR10Lab	QUANT
	1		4/22/2014 00:00:			EPAR10Lab	QUANT
	1		4/21/2014 00:00:			EPAR10Lab	QUANT
	1		4/22/2014 00:00:			EPAR10Lab	QUANT
	1		4/22/2014 00:00:			EPAR10Lab	QUANT
	1		4/22/2014 00:00:			EPAR10Lab	QUANT

Adding a New Reference Value

Please follow DNREC reference values as closely as possible when populating EDD files. However, if you need to add a new reference value to the database/reference value file, please send an email to DNREC_EQuIS@state.de.us including:

1. Your name and company name
2. Reference value you want to add
3. Name of reference table the value belongs in (i.e. rt_analyte)
4. Brief description of the reference value (i.e. for lab qualifiers, analytic methods)
5. Error Log as attachment (optional)

Once the reference value is approved and added to the database, an updated DNREC.rvf will be available. When the datasets are checked using this updated file, the errors associated with this reference value will be eliminated.

Sign and Submit

- Once the EDD is free of errors, you are ready to “Sign and Submit” your EDD.
- Select the “Sign and Submit” button in EDP.
- You will be prompted to enter your username, password and the facility code (DE #) for the data. This username and password is provided to you when you initially register the DNREC EDD format file. Please submit a request to DNREC_EQuIS@state.de.us if you did not receive a username and password

Sign and Submit

- This Sign and Submit feature will automatically save your data as .csv (or .txt) files within a zipped file named in the following format *Current date.Facility code.Format file name* (ex 20111205.DE-1365.DNREC.zip) with your "user certificate" included within the zip file as well.
- A user certificate ("username.usr") is a file that identifies a valid user.
- After the zipped file is created, this "EDD Package" can be submitted to DNREC at DNREC_EQuIS@state.de.us.
- Please refer to the EDP User Guide for more details regarding the Sign and Submit tool.
- **Note: Labs do not need to use the Sign and Submit tool.**

Submit EDD to DNREC

- After the zipped file is created, this “EDD Package” can be submitted to DNREC at DNREC_EQuIS@state.de.us.
- The title of the email should be: DNREC Original Submittal
- CC your DNREC Project Manager on the submittal email.
- If your submittal is accepted you and your project manager will receive an acceptance email.
- If there is a problem with your submittal you will receive an email with a list of errors to correct.
- When you resubmit the EDD, the title and the body of the email should state that this is a corrected submittal.

Role of DNREC Project Managers

- Point contractors to DNREC EDD web page
- Connect contractor to DNREC staff when questions arise about EDDs
- Verifying contractors have successfully submitted data
- Witholding report approval if data has not been submitted

Resources

- Blank EDD
- EDD Description File
- DNREC EDD Submittal Manual
- EDP User's Guide
- Valid Values Spreadsheet

- DNREC EDD Web Page

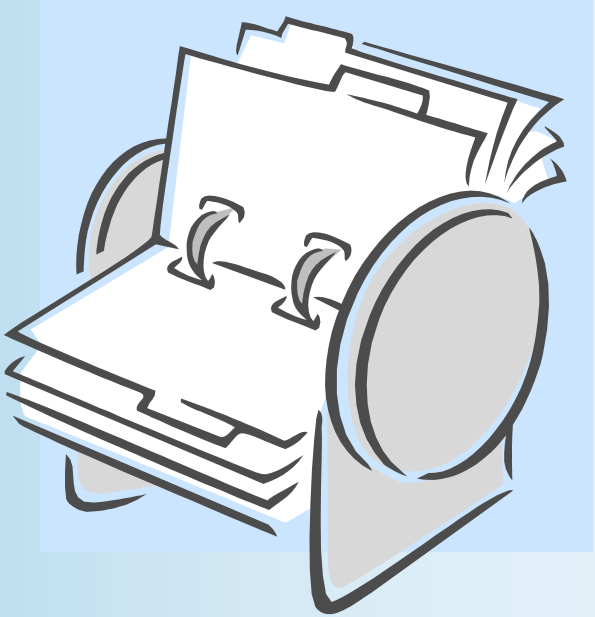
http://www.dnrec.delaware.gov/dwhs/SIRB/Pages/SIRB_EQuIS.aspx

- EarthSoft DNREC EDD Web Page

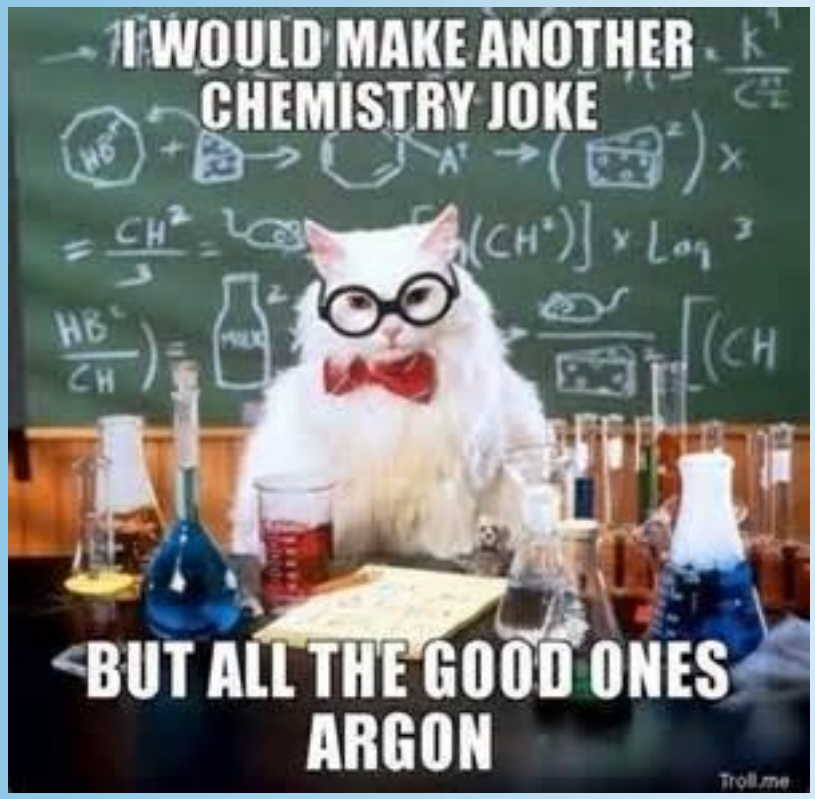
http://www.earthsoft.com/products/edp/edp-format-for-dnrec/

DNREC Point of Contact

- Steph Scholl – Stephanie.Scholl@state.de.us
- Randy Wolfe – Randall.Wolfe@state.de.us



Questions?


I WOULD MAKE ANOTHER CHEMISTRY JOKE
BUT ALL THE GOOD ONES ARGON
Troll.me